become a leading one in the near future; and our statesmen will do well to begin soon to give it their thoughtful attention.

LETTERS TO THE EDITOR.

Increase in growth of young robins.

THE past season my attention had been attracted to the rapid growth made by a nest of young robins on our porch. Early in July another pair of robins built a nest on a bracket on the same porch, in which the female laid three eggs. I carefully watched the nest, to note the appearance of the young, as I had determined to accurately weigh the young birds daily, after hatching, as I was curious to learn just how much they might increase in growth during each succeeding twenty-four hours, up to the time of flight. On July 28, two eggs hatched, the third being infertile. At two o'clock, July 28, I weighed the young birds separately, as I did for the next twelve days at about the same hour. I have designated the birds as 1 and 2; and the following figures represent their increase in weight in grams:—

No.	JULY.			
	28.	29.	30.	31.
	Grams.	Grams.	Grams.	Grams.
1	5.8	8.7	14.3	21.15
2	6	10	14.7	24

No.	AUGUST.								
	1.	2.	3.	4.	5.	6.	7.	8.	9.
	Grams.	Grams.	Grams.	Grams.	Grams.	Grams.	Grams.	Grams.	Grams.
1 . . .	25	33.8	42.5	43.75	51.2	52.45	52.2	53	52.2
2 . . .	26.8	34	43.5	48	52.6	55.3	57.6	57.8	57.8

The above figures are surely interesting, and will, without doubt, surprise many readers who before had no idea of the increase in growth made by the young of birds. As can be seen, the growth made by No. 1 was not so constant and steady as that made by No. 2; and, whereas No. 1 lost some in weight Aug. 8 and 9, No. 2 sustained no loss. The loss in weight was owing, I think, to the great quantity of lice which infested the birds and nest. CHAS. S. PLUMB.

N.Y. experiment-station,
Geneva, N.Y.

The meng-leng.

In China the sphex, or solitary wasp, makes a neat mud-cell in a crevice, puts therein the store of young insects which are to be the food of its own larva, lays its egg in the midst, closes the entrance of the cell, leaving only a minute window in the front wall, and flies away, with reason for such complacency as is produced in the feminine mind by snug housekeeping. The egg develops, the larva sucks the juices of the imprisoned spiders and flies, and finally the little wasp issues through the window, equipped for flight in the sunshine.

The Chinese call this lone, busy, steel-blue insect the 'meng-leng,' and have a peculiar notion of its habits. They say that it has no domestic nor social relationships, but longs, like other creatures, for little folk of its kind. So it makes a cot, and puts therein the child of some fruitful mother of another family, seals the infant carefully into its domicile, and then, flying frequently back from commonplace occupations, it puts its mouth to the little window of the cot, and buzzes and sings 'meng-leng, meng-leng, meng-leng!' And the little creature within, hearing itself constantly called a 'meng-leng,' believes itself to be one, and gradually and surely verifies its name, coming out in due time a perfect sphex.

So in China an adopted child is popularly and poetically called a little 'meng-leng.'

ADELE M. FIELDE.

Indian languages in South America.

Your interesting notice of recent works on 'Indian languages of South America' (*Science*, Aug. 15, p. 138) requires to be completed by the mention of the remarkably valuable treatise by the venerable traveller, J. J. von Tschudi,—'Organismus der Kechua sprache' (Leipzig, *F. A. Brockhaus*, 1884, 534 p.). For the first time in the history of American linguistics, we have here presented an exhaustive analysis of the lexical and grammatical structure of a native tongue, fully adequate to the demands of modern study. Von Tschudi has made a long investigation of the Kechua. As far back as 1853, he published his treatise upon it, and has twice edited the original text of the celebrated Ollantadrama (1853 and 1875).

The introduction to his last work occupies a hundred and twenty-five pages, and contains a brief exposition of his views on the ancient history and mythology of the Inca race, and on the affinities of their language. Based, as his opinions are, on a most careful analysis of the tongue and on ample personal observation, they must have great weight with future ethnologists and antiquaries. To mention only one of his many novel conclusions, he denies any affinity between the Aymara and Kechua languages, and considers Bertonio's grammar and dictionary of the former (from which such affinity has been argued) as based on a local and corrupt dialect.

I would further add to your list the meritorious treatise of Giovanni Pelleschi, 'Sulla lingua degli Indiani Mattacchi del Gran Ciacco' (Firenze, 1881), where, in the scope of seventy pages, he imparts much fresh information about this little-known tongue; and, if not too remote to be called recent, it is worth while mentioning the republication in Lima, in 1880, of the extremely scarce 'Arte de la lengua Yunga,' by F. de la Carrera,—an idiom presenting many curious features, both in phonetics and structure.

D. G. BRINTON, M.D.

Media, Penn., Aug. 16.

Fish-remains in the North-American Silurian rocks.

Mr. E. W. Claypole states in *Science*, July 11, that he has come into the possession of some fossil fish which lead him to the conclusion that there are forms of fish more ancient in America than are known elsewhere. From Mr. Claypole's letter, I gather that he imagines that the upper Ludlows and the 'bone-bed' are the earliest rocks which yield fish-remains. I would direct attention to the fact that the *lower Ludlow* rocks of England have yielded the remains of fish; viz., the Scaphaspis (Lankester). The Scaphaspis ludensis was discovered at Leintwardine, in *lower Ludlow* strata, which must have been deposited long ages before the accumulation of the upper Ludlow 'bone-bed.' Soon after the shield of this fish was detected, I personally investigated the physical position of the rocks in which it was found. The Leintwardine beds are the only locality where the